

REMARKS

Claims 1-18 are pending in the present application. With entry of this Amendment, Applicant amends claims 1, 11, 14 and 16 and cancels claim 10 without prejudice. Reexamination and reconsideration are respectfully requested.

The Examiner objected to claim 16 on the basis of an informality. Applicant has amended claim 16 accordingly and respectfully submits that the objection be withdrawn.

The Examiner rejected claims 1-8, 10-15, 17 and 18 under 35 U.S.C. § 102(b) as being anticipated by Matsuda et al. (US 5075623). The Examiner rejected claims 9 and 16 under § 103(a) as being unpatentable over Matsuda. The rejections are respectfully traversed.

The magnetic material of a wafer exposed to an electron beam can alter the irradiation position on the wafer. The present invention in one embodiment is directed to determining the displacement and deflecting the beam based on the determination to overcome the deviation resulting from a magnetic field of the magnetic material. In one method, a reference location provided on the wafer is detected. The wafer is exposed to the electron beam. The location where the electron beam is reflected from the wafer is detected, and a correction valued based on the detected reference location and reflected location is calculated. The electron beam is deflected based on the correction value.

In contrast, Matsuda does not disclose calculating a correction value and deflecting the electron beam based on the correction value. Matsuda merely discloses a method for measuring a three-dimensional magnetic field caused by a magnetic head by measuring the deviation of an electron beam. The deviation measured in Matsuda is used to determine the magnetic field distribution produced by the magnetic head. There is no disclosure in Matsuda that the distribution is used to calculate a correction value to deflect the electron beam. Matsuda therefore does not calculate a correction value “based on said reference location and said reflected location for correcting a displacement” nor does it disclose “deflecting the electron beam based on said correction value” as recited in claim 1.

Moreover, Matsuda fails to disclose determining the recited locations on a wafer. Fig. 2 of Matsuda illustrates that a plane 2 located near the magnetic head 1 is scanned with an electron beam E. The magnitude of the deviation resulting from the magnetic head 1 is measured on plane 3, which is not at the location of the magnetic head 1. Fig. 3 also shows the electron beam detector 10 at a different location from the magnetic head 8. Thus, Matsuda does not disclose “detecting a reference location provided on the wafer” and “detecting a reflected location at where the electron beam is reflected from the wafer” as recited in claim 1.

Accordingly, for at least the reasons stated above, claim 1 and its dependent claims are not anticipated or obvious in view of Matsuda. Claims 11 and 14 and their respective dependent claims are also not anticipated or obvious for at least the reasons stated above. Finally, Applicant respectfully traverses the Examiner’s statements regarding inherency and mere duplication and, in view of differences discussed above, submits that each of the presently pending claims in this application is in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If, for any reason, the Examiner finds the application other than in condition for allowance, Applicant requests that the Examiner contact the undersigned attorney at the Los Angeles telephone number (213) 892-5630 to discuss any steps necessary to place the application in condition for allowance.

In the unlikely event that the transmittal letter is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorizes the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing docket no. 514802001300.

Dated: September 19, 2003

Respectfully submitted,

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